



# THE USED OIL CONNECTION

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State of Utah  
Department of Environmental Quality  
Division of Solid & Hazardous Waste

## OUTREACH PRESENTATIONS



As part of the Used Oil educational program, we offer outreach presentations to educate the general public about used oil recycling. Although many different types of training are offered, I have been given the opportunity to teach one of the more popular presentations.

I have been with the Department for over 35 years and am able to share some of my environmental experiences, both good and bad, with the participants to illustrate the progress we have made in environmental protection as well as what still needs to be done to properly manage the wastes that we generate.

The training sessions cover regulated wastes, like used oil and how they differ in characteristics, safe handling and how their

By Scott Hopkins

regulations differ from other harmful and hazardous wastes. The training covers measures that should be taken to insure safety to the handlers as well as the environment.

The program is interactive, entertaining and group participation and questions are encouraged. Each individual training session can be tailored to the needs and understanding level of the class. These classes have been presented to groups of all ages and backgrounds with great success. Through stories, pictures, facts and Power Point the Used Oil Recycling Program comes to life. What can be done with used oil, what it is used for, and how to properly recycle the used oil that we generate, are all covered during this presentation. The class can take from 30 to 90 minutes depending on the depth of information and the requirements of the class. The presenter comes to your facility, so there is no need to displace the participants, saving you valuable time and money. If you are interested in arranging one of these outreach presentations for your company, school class, professional trade association, church or social group, please contact me at 801 536-0235 or e-mail [shopkins@utah.gov](mailto:shopkins@utah.gov)

## *Change of Leadership . . . By Deborah Ng*

I am very proud to take the reins from Cheryl Prawl, the pioneer of the used oil recycling program in Utah. She was innovative and personable, making tremendous advances in the program concerning used oil recycling. I hope to take her efforts and expand the program even more with her seasoned staff.

A little about myself; I am a chemical engineer and have been with the State for over 23 years. I've been working in hazardous waste, chemical demilitarization section to be exact, for most of my career. The chemical weapons

stockpile is almost destroyed. Utah had over 42% of the nation's stockpile of chemical weapons, and they are being safely destroyed; an achievement I'm proud to say I was part of. So I decided to find a new challenge. Used oil recycling may not appear as glamorous as chemical weapons destruction but both impact our health and environment if not properly managed, so I'm taking on the challenge.

I look forward to working with my dedicated staff to help make the future cleaner and brighter for everyone in Utah.



# Utah Used Oil Recycling Update

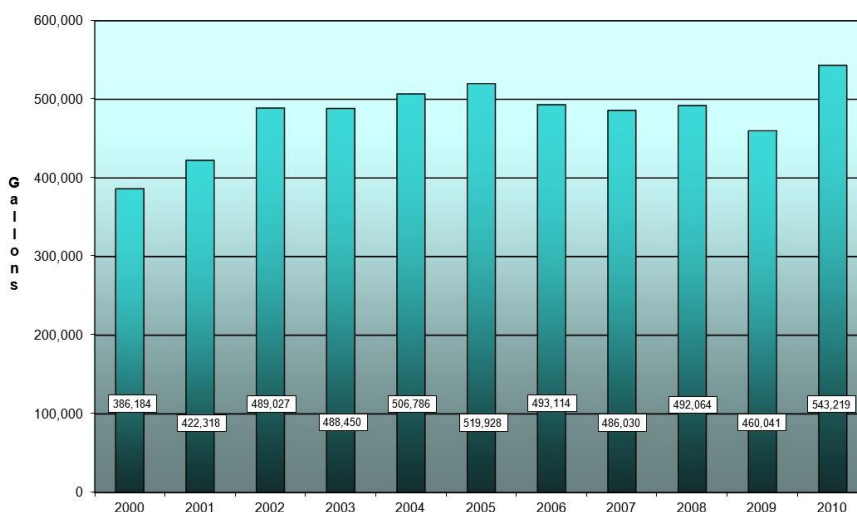
By Kathy Barker

Utah's Do-It-Yourselfer (DIYer) used oil collection totals have continued to grow setting a new record in 2010 of over 543,000 gallons as shown in Graph 1, Utah Do-It-Yourselfer Used Oil Collection. The upward trend can be attributed to the UOCCs' diligence in DIYer log sheet information of drop offs at their centers and the public's awareness of the importance of proper disposal and recycling of used oil. The number of registered DIYer UOCCs in Utah has now risen to 375.

The total quantity of used oil collected by Utah registered used oil transporters in 2010 was approximately 10,526,800 gallons, as shown in Graph 2, Used Oil Collected/Transported in Utah (2000-2010). The annual reported data indicates approximately 77 percent of the used oil collected in Utah remains within Utah to be recycled. A slight drop of used oil transported in 2010 can be partly attributed to higher quality oils now being used in vehicles requiring less frequent oil changes. Also, more businesses are burning their own generated used oil for energy recovery to save on their heating costs.

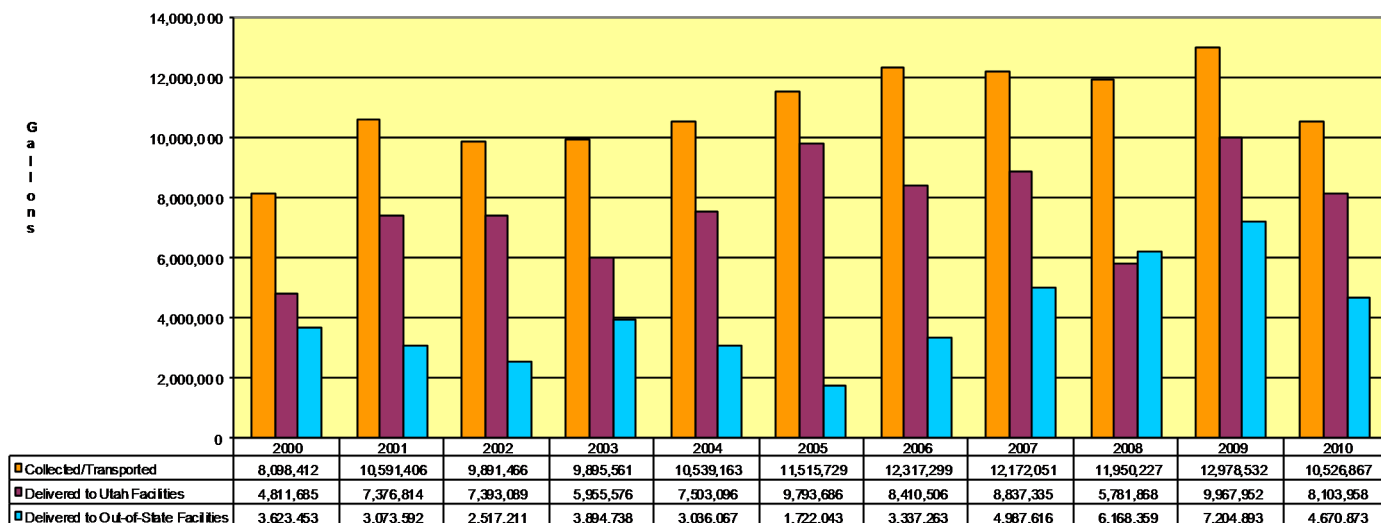
A special thank you is extended to our local health departments, schools, scouting organizations, media, and community events for their efforts in promoting used oil recycling in Utah. Protection of our environment for future generations is being achieved by your hard work and continued support of the used oil recycling program.

Utah Do-It-Yourselfer Used Oil Collection



Graph 1

Used Oil Collected/Transported in Utah (2000 - 2010)



Graph 2

# Used Oil Filter Recycling Technology

Submitted by Ted Sinclair, Thermo Fluids

The State of Utah now benefits from an efficient new used oil filter recycling process. Thermo Fluids Inc. (TFI) has launched a process in Phoenix, AZ with the capacity to recycle 5,800 tons of steel and recover 400,000 gallons of used oil each year. The plant serves the entire southwestern United States as well as Utah's used oil filter generators such as repair companies, auto dealers, auto service retailers and industrial businesses. The process diverts the oil and steel from a landfill and will return used oil filters from their end of life back to highly usable raw materials thereby promoting Utah's sustainable lifecycle for both the steel and used oil.



*Thermo Fluids used oil filter operation: pit, crane, cuber and material handling.*

This new process is able to keep filters out of landfills by recovering components that have value in the marketplace. Oil trapped in the filters is cleared, recycled and reused in numerous ways. The steel casings are separated from the paper elements within the filter, cleaned of debris, becoming an excellent source of recycled high-grade steel. Thermo Fluids has shared this best-practice processing approach and technology with other competitors across the United States in hopes of collectively raising the sustainability standard and contributions its industry can make on

our environment.



*The above photo depicts used oil filters from our Salt Lake City, UT operations.*

To put the filter recycling process into perspective, in 2006, the US Department of Transportation estimated Utah vehicles traveled over 25 million miles. If we assume an oil change every 7,500 miles for gasoline powered vehicles and 5,000 miles for diesel vehicles, the state generated over 3.6 million oil changes. Improperly drained used oil filters may contain up to 4.5 ounces of used oil. This equates to over 125,000 gallons a year of used oil generated from simply removing used oil filters. Further, if you consider the average steel casing weighs 12.5 ounces, Utah would generate 177 tons of steel a year.

In addition to this innovative solution, Thermo Fluids also recycles and fully remanufactures over 1 million gallons of used antifreeze each year. Every gallon of spent antifreeze this company collects in Utah is sent for recycling to its antifreeze recycling plant

in Las Vegas, NV.

"Our goal is to do what's best for the environment," said James Devlin, Thermo Fluids' Chief Executive Officer. "The more material we reuse, recycle or otherwise intentionally keep out of landfills, the better off we all are. At the same time we're partnering with our customers to achieve their sustainability goals by offering them a better alternative to disposing their used oil filters and other automotive materials".



*Here we have a 62 pound finished "brick" of high grade steel ready for reuse as a feed-stock for rebar (as an example).*

**\*Editor's Note:** If companies or individuals want to recycle their own used oil filters, they can contact local used oil collection centers, landfills, or used oil permitted facilities to determine if they accept used oil filters for recycling. If they are unable to locate a used oil filter recycler, they can drain the used oil out of the filter themselves by puncturing the filter and letting it drain for approximately 12 hours before discarding the filter in their garbage.





# Be a Champion for a Great Cause

By Scott Hopkins

Here at the Division of Solid and Hazardous Waste, we like to pursue every possible avenue to protect human health and the environment. We try to include as many people as we can in this process. Eagle scouting has been an excellent source for education throughout our communities.

The USEPA estimates that about 130 million gallons a year of used oil from do-it-yourself oil changes are improperly disposed of down storm sewers or on the ground. With the possibility of used oil from do-it-yourselfers being improperly disposed in trash cans or on the ground, the Division of Solid and Hazardous Waste is proposing an opportunity for volunteers or an organization, such as an Eagle Scout Project, to contribute to the awareness of properly disposing of used oil.

The candidate or organization would choose a target area from which to educate, collect and properly recycle household, Do-it-Yourselfer generated used oil. The Division would supply the appropriate informational handouts and garbage can stickers. These stickers indicate that used oil should be properly recycled and not disposed of in the garbage cans. The organization or Eagle Scout candidate would distribute a number of the informational/instructional packets to the households in the target area prior to the day when the used oil is to be collected. Contents of these packets could include: the

day and time of pick up, acceptable containers and amount of oil that can be picked up. Also the instructions would encourage the households to apply the green sticker to the under side of the garbage can lids. Once applied, these stickers would encourage general environmental awareness, as well as serve as a reminder that used oil must be properly recycled and provide a toll-free number where one can call to find a free collection center nearby. The other handout would provide information to the homeowners on recycling of many common household generated items.

Prior to collection, the Eagle candidate or organization would have to arrange with a Utah-registered Used Oil Collection Center to accept the collected oil for proper recycling. The Division can supply a list of registered collection centers in your area.

For more information about this program, please contact Scott M. Hopkins at the Utah State Department of Environmental Quality, Division of Solid and Hazardous Waste, Used Oil Recycling Program, 801-536-0235.



## RULES-RULES-RULES

By Deborah Ng

When I started in the used oil program, navigating through the regulations was very frustrating. There are references to the Hazardous Waste Rules, Solid Waste Rules, Code of Federal Regulations, and more. To help decipher the Standards for Management of Used Oil, R315-15, the "Rules", the Division is proposing to modify the Rules; the proposed changes will be mailed out for public comment period and will be posted on our website. The proposed changes clarify language intent and outline regulations from other references so the reader can clearly understand the used oil management requirements.

A copy of the proposed changes will be located at <http://www.hazardouswaste.utah.gov/Public/PublicHearingsandCommentPeriods.htm> when ready for public comment. A notice will be sent out to the used oil community notifying you of the proposed changes.

If you have questions, please contact Deborah Ng or David Wheeler at 801-536-0200; [dng@utah.gov](mailto:dng@utah.gov) or [dwheeler@utah.gov](mailto:dwheeler@utah.gov).

Once out for public comment, official comments to the proposed changes should be sent to:

Scott T. Anderson, Executive Secretary  
Utah Solid and Hazardous Waste Control Board  
P.O. Box 144880  
Salt Lake City, Utah 84114-4880

# Please, Please, Please Log Your Oil



By Scott Hopkins

**A**s Used-Oil Recycling Coordinator for the Division of Solid and Hazardous Waste, part of my job is to visit Used Oil Collection Centers (UOCCs) throughout the State. I have had the opportunity to meet and train many of the managers of these UOCCs.

One of the requirements of being a UOCC is that the used oil from do-it-yourselfer (DIYer) farmers that produce an average of 25 gallons or less of oil a month and DIYer home mechanics is accurately logged. Our Division furnishes these log sheets to each UOCC and asks that they be filled out each time oil is dropped off for recycling. It has become painfully aware to me, however, that this is not happening. We, as a Division, realize that this is just one more thing that you must do in any day that is not in your already burgeoning schedule, but it is paramount that these records be kept and is the only way you can be reimbursed for the oil that is recycled.

Many think that recording their name on any document is just "Big Brother" getting more into their lives; this is not the case at all. This information is very important for two

reasons: First, The Division of Solid and Hazardous Waste will reimburse each UOCC 16 cents per each gallon logged from DIYers households and farmers. So if each gallon is properly logged, it is an economic benefit to the UOCC manager. Second, if the used oil is not logged, the Division cannot properly account for the full recycling efforts of the DIYers and farmers. Even if your DIYer collection center burns the oil onsite, you will still be reimbursed for the DIYer household and farmer oil brought to you.

Some UOCC managers have asked what to do with oil that simply shows up on their doorstep after hours. On examination that it is only used oil, it is logged in as "Orphan Oil" along with the amount. If it appears to be something than used oil, set it aside and call your local health department.

So help us out while helping yourselves; and please, please, please log in that used oil.



## OIL CHANGE FREQUENCY

By Kathy Barker

**G**etting a new car is exciting! It's especially exhilarating when you read in your owner's manual that oil changes are recommended at 5,000 to 10,000 mile intervals. No more 3,000-mile oil changes! Wow! This is going to simplify your life and save you money!

The question we need to consider then, can we depend on our oil and oil filter to do its job for that entire time? Drivers may take their oil filters for granted. However, this small, inexpensive part of a vehicle's lubrication system plays a vital role in protecting the engine from premature wear.

Corrosion of the filter housing and potential perforation can lead to a catastrophic loss of engine oil. If the oil and filter are not changed in a timely fashion and the filter becomes clogged. The filter will allow gritty, unfiltered oil into critical areas of the engine where it can cause disastrous damage. Therefore, it may be wise to utilize only the high grades of oil available and a top-of-the-line oil filter to extend your oil and oil filter changes.

Top-of-the-line oil filters will provide good filtration for these additional miles, but these filters need to be requested when changing oil. Businesses can supply high quality oil and filters upon request. You have to look for quality and spend the extra dollars for improved filtration protection and to utilize the extra lubrication benefits of high grade oils. In the long run, you will save money.

Another consideration of determining oil change intervals is influenced by how the vehicle is used. Most engine wear occurs on start up. The more cold-engine start ups, the sooner oil breakdown occurs. City driving also causes more wear on internal engine components than highway driving. So keep these factors also in mind when trying to decide how many miles before your next oil change.

Your car is a valuable investment. If you give that new car tender loving care, it will likely return the favor!

# The Used Oil Connection



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